Conveyance Program

Conveyance Program Objectives

The purpose of the Conveyance Program is to identify and implement water conveyance modifications in the Delta that will:

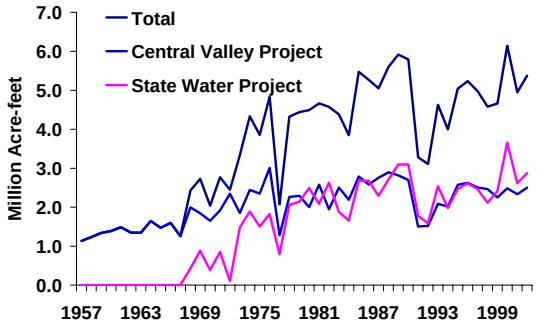
- Improve water supply reliability for in-Delta and export users
- Support protection and continuous improvement of drinking water quality
- Improve the Delta ecosystem
- Reduce risk of water supply disruptions due to catastrophic breaching of Delta levees

The projects identified in the ROD center around a "Through Delta" strategy. Channel improvements and modifications will enable water to more efficiently move through the Delta. Constructing and operating new control facilities and Delta channel improvements will enable better water circulation to meet site specific water quality and water level objectives, improve conveyance reliability through the Delta and allow greater flexibility to move water around the Delta with less harm to fisheries.

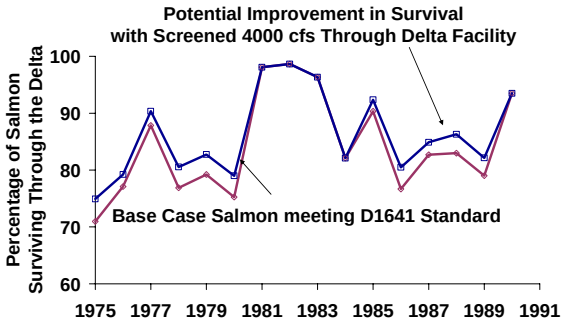
Delta Exports: The existing South Delta export facilities have a combined capacity to divert up to 15,000 cfs of Delta water. The export facilities are presently limited in utilizing this capacity because they must meet regulatory requirements including average daily diversion limitations, Delta inflow/outflow ratios, minimum protection, water stage, fisheries protections, and water quality requirements at many Delta locations. As water contractors are increasingly requesting more of their contractual supplies, South of Delta water demands continue to increase.

The graph at the right shows a history of the annual volume of water exported from the Delta. The South Delta Improvements Program includes provisions and facilities that will result in increasing the permitted State diversion capacity to an average daily flow of 8,500 cfs. The increased capacity will help meet South of Delta demands while providing the operational flexibility and facilities to meet water quality and fisheries protections.

Potential Improvement in Salmon Survival: Moving larger volumes of water into the South Delta requires more efficient water transportation systems and operational facilities to reduce channel scour, to protect levees, and provide high quality water through the Delta to all water users. Exporting more water during



State and Federal Delta Exports (1957 – 2002) have increased as demands have increased.



Preliminary studies show that more salmon would survive with a screened Through Delta Facility

salmon migration periods can result in higher numbers of fish being entrained into the central Delta from the Sacramento River. Fish entrained into the central Delta can result in mortality three times greater than those that continue their migration down the Sacramento River. Current strategies to improve survival call for closing the Delta Cross Channel gates during these periods; however, this action can also result in Delta water quality degradation. A screened, 4000 cfs conveyance channel is being investigated to allow flows into the central Delta while reducing fish entrainment. The figure at right shows the potential overall increase in Delta salmon passage survival as a result of operating this new facility when the DCC gates are closed. Water quality improvements (not shown) also result from these modifications.

Next Steps:

Work on Conveyance performance indicators and performance measures will continue over the next several years. Through work with the CALFED science program and stakeholders, staff will make progress on the following pending indicators:

- List of key studies to be completed and the critical information.
- Planned completion dates for projects.
- Water quality improvement potential from conveyance channel improvements.
- Improved fish survival at the South Delta fish facilities.
- Water supply reliability improvements.
- Water level improvements in the South Delta.
- Reduced channel scour and levee degradation.

Summary of Accomplishments:

Notable accomplishments of the Conveyance Program over the last four years include:

- Completed an administrative draft EIR/EIS of the South Delta Improvements Project.
- Initiated a multi-year hydrodynamic study to better understand the movement of water, fish, and water quality in the south Delta.
- Initiated studies to improve the Collection, Handling, Transportation, and Release of delta smelt at the existing fish salvage facilities.
- Initiated final design and supporting environmental documentation for the Delta Mendota Canal/California Aqueduct Intertie.
- Continued the Temporary Barriers Project to ensure water level and fish protection in the South Delta.
- Implementing fish facility improvements at the Tracy Fish Facility.
- Formed a South Delta Fish Facilities Forum Group and a process to recommend Tracy Fish Test Facility projects.
- Evaluated opportunities for conceptual flood improvements as identified in the internal draft Comprehensive Study Lower San Joaquin River Assessment Information Report (October 2001).
- Conducted two years of fisheries, water quality, and hydrodynamics studies and experiments to provide a solid basis for future operations of the Delta Cross Channel.

Conveyance Program Budget Summary

Element Task	Appropriateions for FY 00-04 CALFED	Local	Subtotal	Task Group	FY 00-04 Subtotals	Objectives Supported
8,500 cfs - Permanent Operable Barriers	$ 0.03	$ 26.84	$ 26.87	Barriers	42.66	
Temporary Barriers		$ 15.79	$ 15.79			
Lower San Joaquin Flood Improvements	$ 0.18			Flood/eco	3.18	
North Delta Flood Control & Ecosystem Restoration Improvement Program	$ 3.00		$ 3.18			
Oversight, Coordination & Science	$ 2.11	$ 0.17	$ 2.27	Science, Management, & Oversight/Coordination	2.27	
Delta Mendota Canal / California Aqueduct Intertie	$ 2.15	$ 0.03	$ 2.19	South of Delta	18.06	
Old River & Rock Slough Water Quality Improvement Projects	$ 1.55	$ 0.71	$ 2.26			
San Luis Reservoir Low Point Improvement Project	$ 13.57	$ 0.05	$ 13.62			
Clifton Court Fish Screens / 10,300 cfs	$ 0.18	$ 1.48	$ 1.66	Through Delta	59.32	
Clifton Court Forebay/Tracy Pumping Plant Intertie			$ -			
Delta Cross Channel Re-operation	$ 4.70	$ 1.09	$ 5.79			
Through Delta Facility	$ 6.34	$ 0.30	$ 6.64			
Tracy Fish Test Facility	$ 38.26	$ 6.97	$ 45.24			
Subtotal - Conveyance			**125.489**			


Contributes to water supply reliability objectives


Contibutes to ecosystem objectives


Contributes to water quality objectives